

**METHODS FOR THE SPECIFIC DETECTION OF REDOX-ACTIVE
TAGS AND THE USE THEREOF FOR CAPILLARY GEL
ELECTROPHORESIS AND DNA SEQUENCING**

ABSTRACT OF THE DISCLOSURE

5 [0001] This invention provides novel approach to the specific detection of redox-
active moieties (e.g.) in a population of redox-active moieties. In particular this invention
provides a "phase-nulling" technique that can be used in the electrochemical detection of
redox-active tags. The signal for each tag is selectively eliminated while the other tag's
response remains virtually unchanged. This novel analysis scheme allows for the simple
10 identification of a tag of interest in a complex matrix and is demonstrated with both flow
injection analysis and capillary gel electrophoresis..